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ABSTRACT

Examined is the use of wastewater treatment facilities for recreation, education, and open space. Objectives of the learning session described in this instructor's manual are to: (1) introduce opportunities for multiple use, (2) identify areas for citizen input in facility planning and design, and (3) provide criteria for determining local needs and involvement. As part of the Working for Clean Water Project, a slide-tape program for this unit is also available. These materials are designed for citizen advisory groups interested in improving decision making in water quality planning. (Author/WB)

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ED206485

Working for Clean Water

An Information Program for Advisory Groups

Multiple Use

Instructor Guide

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION

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Multiple Use

Spurred on by Congressional legislation, multiple use adaptations are being made of both new and old wastewater treatment facilities. Although these projects have the single purpose of water clean up, additional uses of the facilities are being found. Tennis is played atop a sludge digester tank in Colorado. Small-game hunting is permitted at a land treatment facility in Michigan. A New York City plant is well-known for its environmental education program. Most of these projects, and others around the nation, involve recreational, open space, and educational uses. Other activities involving treatment by-products are being pursued, such as land reclamation in Illinois, and methane production in Iowa. Even abandoned facilities such as a trickling filter in Ohio are being given new functions.

Indeed, the potential for treatment facilities to do more than just clean up wastewaters is practically unlimited.

The objectives of this unit are:

- introduction to opportunities for multiple uses of wastewater treatment facilities
- identification of citizen input in facility planning and design
- determination of local multiple use needs, and opportunities for local involvement.

Required Materials

☐ Set of slides plus cassette tape for A/V presentation entitled: "Clean Water Recreation: A How-To Slide Show"

☐ Slide projector, cassette tape player, and screen

☐ Set of transparencies plus overhead projector or set of flip charts plus easel and/or chalkboard for guided discussion

☐ Copy of the handbook, "Multiple Use," for each participant.

☐ Map of the local area.

Important Notes

1. Several instructional options exist. The instructor may:

   a. show the slide/tape program without substantive discussion

   b. discuss various multiple use options with their strengths and weaknesses, assisted by the charts and diagrams

   c. engage in situation exercises about multiple uses

   d. discuss educational and resource opportunity types of multiple uses.

Any combination of these options may be used, but almost all of them together are necessary for the total picture. If all the instructional options are selected, a one-hour session will be insufficient.

2. In consultation with area or state water quality management personnel, the instructor should be knowledgeable about multiple use options that best fit the local situation.

3. Prepare sufficient copies of the situation exercise sheets for each participant, if this option is used. The instructor may use the situation exercise sheets provided in the Appendix of this guide or may develop others that are more pertinent to the local group.

4. A map may assist the discussion, especially if the participants are from a broad area.

5. The slide/tape program was co-produced by the EPA and the Heritage Conservation and Recreation Service (HCRS). Copies for free loan are available at regional offices of both the EPA and the HCRS.

Suggested Activities

Introductory Comments	5 minutes
A/V Presentation	15 minutes
Guided Discussion (Selected Options)	25-35 minutes
Closing Remarks	5 minutes
TOTAL TIME	50-60 minutes

Introductory Comments (5 minutes)

1. The consideration of multiple uses of wastewater treatment facilities is required by law (The Clean Water Act of 1972, Section 201).

NOTE: Contents of the charts are included in the Appendix.

2. Advisory groups can have input about multiple uses in both 208 areawide plans and 201 facility plans.

In 201 facility planning these inputs are especially significant during:

- Selection of consultant
- Preapplication conference
- Preparation of facility plan and public hearing
- Reviews of project plans and specifications.

They are especially significant during the facility planning and design stages.

3. What about the particular situation? Discuss the local needs and appropriate points for considering multiple use.

Use Chart 1 - Advisory Group Facilities in Facility Planning and Design; use Chart 2 as an overlay.

4. Mainly education, recreation, and open space multiple use options have been developed at plants around the country. Recreational opportunities are illustrated and discussed in the A/V presentation.

A/V Presentation (15 minutes)

1. Ask the advisory group to try to relate the information in the A/V presentation to the community's own situation.

A/V script is in the Appendix.

2. Show the slide/tape program entitled, "Clean Water Recreation: A How-To Slide Show."

3. The slide/tape program discusses primarily multiple uses for 208 plans, such as greenways. Therefore, the emphasis in the guided discussion centers on multiple uses for 201 facility plans, for example, the use of wastewater treatment plant by-products.

Guided Discussion (25-35 minutes)

Encourage discussion. This is not to be a lecture!

1. Ask for impressions or comments about the A/V presentation. Clear up these matters before continuing.

Use Chart 3 - Multiple Use of Wastewater Treatment By-Products

2. Uses for wastewater treatment facilities other than environmental education, recreation, and open space are increasingly important. Various by-products from treatment processes also serve useful functions. For example:

- effluent can be used in agricultural irrigation, industrial cooling, aquifer recharge, and hydropower generation
- digester heat can warm rooms and keep ice off outdoor surfaces.
- sludge can reclaim lands, produce combustible methane gas, and serve as a fuel source.

Important to point out!

Some of these capital intensive options are more efficiently designed as multiple purpose projects. As such they would <u>not</u> qualify for funding under the Constructive Grants Program.

Use Chart 4 - Multiple Use Matrix. A matrix with examples is also provided in the Appendix for use as a handout. Funding sources can be found in the citizen handbook.

3. Using the multiple use matrix, briefly review the types of projects, their attributes and drawbacks that are relevant for the locality, and potential funding sources.

4. Situation exercises also may be used to: (1) underscore important aspects; (2) cover incidental matters; (3) serve as a change of pace; (4) spark informational exchanges among the participants.

Conduct these exercises in the following way:

Four situation sheets are provided (A, B, C, D) in the Appendix.

a. Assign the participants to groups of three persons.

b. Pass out situation sheets to each person.

c. Give each group two to three minutes to discuss their responses.

d. Ask for a show of hands on various options.

e. Then skillfully explore why people made the decisions that they did, getting them to relate their personal experiences and insights.

f. There are no absolutely right or wrong answers.

Closing Remarks (5 minutes)

1. Answer any remaining questions.

2. Summarize the major points of the presentation. *Use flip chart or chalkboard.*

Selected Resources

Green Spaces and People Places: A Manual on The Multiple Uses of Wastewater Treatment Plants. New York, NY: U.S. Environmental Protection Agency, Region II, 1978. 38 pp.

This manual is an excellent document that mainly covers the rationale for multiple use, the successful experiences of plants, the needs and problems that have been experienced, available funding, and how to go about multiple use planning. Other sections list contacts, and give information sources. Appendices summarize relevant portions of the Federal Water Pollution Control Act of 1972 and provide a sample lease agreement. The manual is strongly oriented to the situations and needs in EPA Region II. The manual is available from the U.S. Environmental Protection Agency, Region II Office, 26 Federal Plaza, New York, NY 10007

Fulfilling Recreation and Open Space Requirements in Water Quality Mangement Planning. Nos. 1 and 2. Washington, DC: Heritage Conservation and Recreation Service, U.S. Department of the Interior, 1979. 8 and 11 pp.

These booklets deal only with the range of considerations involved in recreational and open space aspects of multiple use planning. In a question and answer format, Section 201 of the 1977 Clean Water Act is defined, funding and sponsors are discussed, and multiple use opportunities are outlined. Aspects of evaluating recreation possibilities for facility planning, design, and construction are covered. Both booklets have charts of funding assistance. The addresses and telephone number of agency offices also are given. Copies of the booklets can be procured from the Heritage Conservation and Recreation Service, U.S. Department of the Interior, 440 G Street, NW, Washington, DC 20243.

Public Benefits from Water Clean-Up. Washington, DC: Office of Land Use Coordination, U.S. Environmental Protection Agency, 1978. 41 pp.

This booklet was written by the National Recreation and Park Association for the EPA. It abounds with a mixture of success stories, policy discussion, and the regional planning criteria for sewer rights of way, treatment plant and lift station sites, and environmental education programs. It

also covers funding sources, and implementation aspects. An appendix features a detailed discussion of legal considerations. It has ample planning illustrations and pictures. Because of a policy matter the booklet has not undergone widespread distribution. Only photocopies are available at cost from the Office of Land Use Coordination, Environmental Protection Agency, Washington, DC 20460.

The Public Benefits of Cleaned Water: Emerging Greenway Opportunities. Washington, DC: U.S. Environemtal Protection Agency, Office of Land Use Coordination, August 1977. 31 pp.

This booklet discusses the types of greenways, and the plan development and implementation processes. Three examples of Texas, Michigan, and Maine greenways are described and illustrated. The booklet has many landscape drawings and diagrams. The addresses of the regional offices of the Environmental Protection Agency and the Bureau of Outdoor Recreation also are given. Copies can be obtained from the Environmental Protection Agency, Office of Land Use Coordination, Washington, DC 20460.

"The Big Cleanup." Parks and Recreation Magazine, Special water quality issue. Washington, DC: National Recreation and Park Association, February 1977. 40 pp.

This magazine is an easy, bouncy introduction to the Clean Water Act of 1977, and major water quality issues. Sections entitled, "BOR Looks at Water Quality," "Success Stories in Multiple Use," "Tennis on a Tank," and "A New Classroom for Environmental Education" are especially relevant to multiple use. Copies of this magazine can be obtained from EPA regional offices, or from the National Recreation and Park Association, 1601 North Kent Street, Arlington, VA 22209.

Appendix

A. Contents of charts for use by instructor in the suggested activities. Pages may be used to make transparencies or the contents may be copied onto flip charts.

1. Advisory Group Activities in Facility Planning and Design

2. Overlay to use with Chart 1

3. Multiple Use of Wastewater Treatment By-Products

4. Multiple Use Matrix

B. Handouts for use by instructor in the guided discussion. Copies will need to be made for each participant.

1. Multiple Use Matrix with examples (2)

2. Situation Exercise Sheets

   a. Situation A: Multi-Purpose Projects

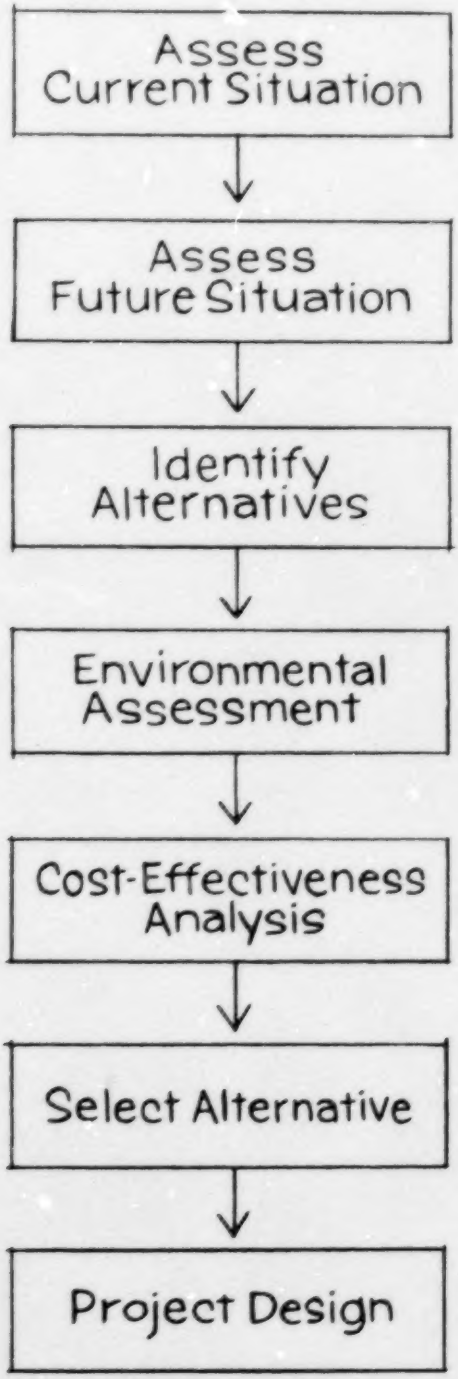
   b. Situation B: Citizen Query

   c. Situation C: Advisory Group Inputs

   d. Situation D: Local Needs

C. Copy of the script for the slide/tape program, "Clean Water Recreation: A How-To Slide Show."

Advisory Group Activities in Facility Planning and Design



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Put multiple use on agendas of public meetings.

Invite recreationists and other interests to join in multiple use studies.

Arrange for presentations to key constituents (e.g. education groups).

Put multiple use on agendas of public hearings.

Identify and assess multiple use needs. Consult with the public and communicate findings to consultant.

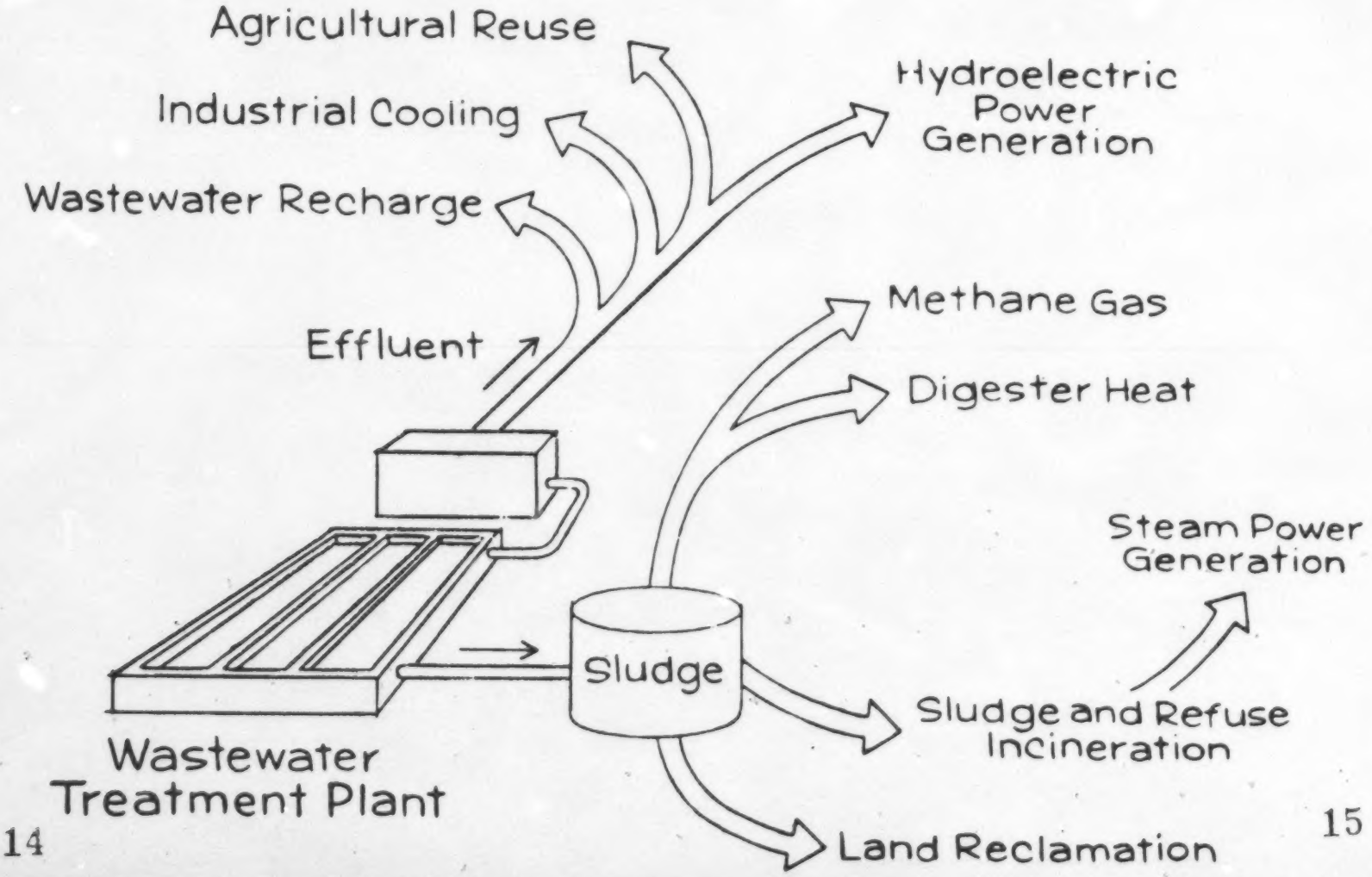
— Raise multiple use issue with public.

— Include multiple use.

— Conduct detailed multiple use analysis.

— Oversee inclusion of multiple use.

Multiple Use of Wastewater Treatment By-Products



Multiple Use Matrix

Water Quality Improvement Projects / Multiple-Use Opportunities	Active Treatment Plant Sites	structures	grounds	Abandoned Plants	Interceptors	Treatment Plant By-Products	
Outdoor Recreation							
Conservation							
Education							

MULTIPLE USE MATRIX

MULTIPLE-USE OPPORTUNITIES / WATER QUALITY IMPROVEMENT PROJECTS	ACTIVE TREATMENT PLANT SITES	digesters	control buildings	outfall lines	surrounding land	roof tops	ABANDONED PLANTS	INTERCEPTORS	PUMP STATIONS	TREATMENT PLANT BY-PRODUCT AND RESOURCES	sludge	treated effluent	spray irrigation	digester heat	digester methane	steambank protection	cleaned water body
OUTDOOR RECREATION																	
trails								(1)									
picnic areas					○		○	○									
boat ramps				○	(13)												(13)
fishing piers				(3)													○
tennis courts		(2)			○		(4)							(2)			
all-purpose courts					○		(4)										
bleachers/amphitheaters					○				(15)								
gardens					(13)			○		○	○	○					
skating rinks							(4)										
splash pools							(4)										
playgrounds					○	○	(4)										
parks					(13)	○	(4)										(11)
parking facilities					○												
CONSERVATION																	
open space					○			○								○	○
greenways								○								(5)	(7)
reclamation sites											(9)						
cropland					○			○			○	○	(6)				
water storage							○										
EDUCATION																	
environmental classes	(8)		○							○							○
community meeting rooms	○		○														
educational tours	(12)		○							○							
CAREER TRAINING	(14)																
CULTURAL TRAINING																	
archeological digs	○							(10)									

KEY

○ - project with potential

(6) - existing projects; see next page.

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Multiple Use Projects

NOTE: These projects are keyed to the Multiple Use Matrix by number.

1. Lowell, Massachusetts - Hiking and bicycling trail on the same easement as sewer interceptor along the canals and river banks in the "urban cultural park" section of the city.

   Bellevue, Washington - Proposed bikeway along an interceptor adjacent to a natural wetland that is being acquired with money from the Land and Water Conservation Fund.

2. Evergreen, Colorado - 2 tennis courts on the top of an active digester that were privately developed for $12,000 and leased from the Sewer Authority. Multiple-use of a prime "flat" site.

3. Pacifica Pier, California - 1 mile long popular fishing pier above an outfall pipe.

4. Miamisburg, Ohio - Renovation of an abandoned treatment plant into a neighborhood park with money from the Land and Water Conservation Fund. a. mound over digester - adventure playground; b. aeroclarifier - splash pool and skating rink; c. sludge beds - paved for tennis, volleyball, and basketball courts.

5. Napiersville, Illinois - a greenway connecting 4 small abandoned treatment plants that have been converted into recreation sites along the DuPage River.

6. Muskegon, Co., Michigan - Agricultural cash corn crop grown with the aid of spray irrigation; secondary opportunities - attracts wildlife which allows the property to be opened for hunting when spray operations cease in winter months.

7. San Antonio River Walk, Texas - An urban greenway in the downtown area that involved planning by all levels of government and the private and civic sectors.

8. Shenandoah National Park, Virginia - Big Meadows Campground Area Wastewater treatment facility was designed for an interpretive self-guiding program to promote environmental education through visitor awareness.

9. Fulton Co., Illinois - Approximately 13,000 acres of strip-mined land owned by the sewer district has been reclaimed through the application of sludge.

10. West Windsor, New Jersey - Stony Brook Regional Sewer Authority provided the opportunity for an archeological salvage operation of an interceptor line by college students under the guidance of a professor. Material was analyzed, catalogued and examined, then sent to a State museum.

11. Cook Co., Illinois - Metropolitan Sanitary District is dedicating its lands adjacent to 3 cleaned-up canals to purposes of recreation, conservation and education in Chicago and Evanston.

12. New York City - 26th Ward Wastewater Treatment Plant Site - open for educational tours to school groups.

    Washington, DC - Washington Suburban Sanitary Commission has invited community groups and public school classes to tour its plants for the past 20 years. During that time the Commission has paid school bus transportation costs for plant tours for two major public school systems.

13. Napierville, Illinois - Buffer land around new regional treatment plant have been leased to local Park District for recreational uses including community gardens and a canoe access facility.

14. Fairfax, Virginia - A regional treatment plant under construction will contain a complete laboratory training facility.

15. Barrington, Rhode Island - The bermed sides of an underground pump station provided a suitable site to construct bleaches for the adjacent hockey rink.

Adapted from EPA Region III Multiple Use Matrix.

SITUATION A: MULTI-PURPOSE PROJECTS

EPA policy on multiple use is unclear. Construction funds are ineligible for parts of multi-purpose projects. Wastewater treatment plants are primarily designed for single use (water clean up), rather than many purposes such as co-generation and recreation in addition to treating wastewaters.

Some persons feel that the EPA position is ambiguous. The overall benefits of multi-purpose facilities outweigh concerns such as who pays and who regulates. Besides, the distinction between multi-purpose and multiple use is not always evident. As an advisory group member who favors multi-purpose projects you:

(Choose one or more)

_____ (a) Try to get the grantee to develop multi-purpose facility designs, anticipating that the EPA will go along with them.

_____ (b) Advise the consultant to develop flexible designs (e.g., location of pipes, choice of treatment processes) that will permit possible multi-purpose adaptations in the future.

_____ (c) Ask your Congressman to bring pressure on the EPA to support your position.

_____ (d) Attempt to get actions from relevant community agencies which have a bearing upon multi-purpose development (e.g., zoning plans)

_____ (e) Ask your consultant and agency to look at the project as a innovative and alternative treatment option.

_____ (f) Other: _____

_____

SITUATION B: CITIZEN QUERY

Although multiple use options are associated with individual treatment facilities, they can be coordinated on an areawide basis. For example, some plants can specialize in environmental education activities. These facilities will have provisions for visitor orientations and tours; work schedules and personnel assignments will be adjusted accordingly. Such planning allows a more efficient allocation of resources without duplications of efforts or opportunities.

This approach creates a problem, however. Which plant gets to do what? The taxpayers for one plant may not want to drive ten miles to engage in a multiple use activity at another plant. Saving tax monies overall really may not matter to the local public. Suppose an irate representative of a large special interest group is incensed that the 208 plan calls for small-game hunting at a neighboring land treatment facility located on the other side of the county. Such a multiple use activity can be developed at the facility serving the irate citizen. As an advisory group member to the 208 planning agency, your response to the irate citizen is:

(Choose one or more)

_____ (a) Adequate public testimony already has been taken on the 208 plan. It is a shame this concern was not brought up earlier.

_____ (b) Tell the citizen that you will find out the reasons for the decision, and call him back.

_____ (c) Call a public meeting to discuss the issue.

_____ (d) Try to convince the citizen that since the proposed action is best for the public good, it also is best for the citizen.

_____ (e) Set up a subcommittee of the advisory group to consider the matter.

_____ (f) Invite the citizen to the next meeting of the planning group to give a presentation of views.

_____ (g) Other: _____

_____

SITUATION C: ADVISORY GROUP INPUTS

The development of facilities involves a number of steps, including:

1. Water quality problems
2. Proposed project
3. Preapplication conference
4. State priority list
5. Step 1 application
6. Step 1 funding
7. Facility planning
   - Assess current and future situations
   - Identify alternatives
   - Environmental assessment
   - Cost-effectiveness analysis
   - Alternative selection
8. Facility design (Step 2)
9. Facility construction (Step 3)
10. Facility operation

Advisory groups can contribute input throughout the sequence. However, the grantee may depend upon the advisory group more in some areas (e.g., public participation) than others (e.g., assessment of types of treatment processes). Additionally, the advisory group itself has many things to consider. At which points in the facility development sequence should the advisory group concentrate its efforts on multiple use? What are the advantages and disadvantages of these choices?

Point in Sequence	Advantage/Disadvantages

SITUATION D: LOCAL NEEDS

Current and future situations are assessed early in facility planning. Before the planning can proceed, however, an inventory of the local situation has to be compiled. Just as the realization of pollution problems leads off the planning process, the identification of multiple use needs is necessary for multiple use planning.

In a brainstorming session, first list all possible multiple use opportunities for the community. Then, match the needs of the community with multiple use opportunities. Finally, identify resources--especially local parties--for fulfilling the multiple use needs.

Multiple- Use Opportunities	Local Needs	Resources

Audiovisual Script

"Clean Water Recreation: A How-To Slide Show"

Slide Description	Narrative
1. Blank	Turn on tape - 10 seconds of no sound.
2. Words: Clean Water Recreation: A How-To Slide Show	Sound of water.
3. Picture: Smoke billowing out of smokestacks	We grew up as an industrial nation ... wrapped in technology, fed on energy, surrounded by power plants, mills and factories.
4. Picture: Coal stripmining equipment	We shredded ... distilled ... refined ... pulverized ... and burned. All with the intention of leading a good life.
5. Picture: Statue of Liberty	But somewhere in the last decade or two, "the comfortable good life" took on some not-so-good qualities. Our waters had become open sewers for wastes and exotic chemicals ... neither fish nor people could use them.
6. Picture: White horse in water	We learned an important lesson: that clean water is essential to well-being -- that there is a fragile, intimate relationship between all living things and their environment.
7. Picture: Adult and child fishing in stream	So we began the cleanup of our lakes, streams and rivers. In 1972, Congress established a vital national goal for the decade to follow: to revive the nation's waters, making them "swimmable and fishable."
8. Picture: Clouds reflected in clarifier	In that year dramatic amendments to the Federal Water Pollution Control Act committed 18 billion dollars to municipal sewage treatment. This legislation initiated — through the Construction Grant Program of the Environmental Protection Agency
9. Picture: Plant under construction and effluent passing over weir	— one of the largest public construction programs in history. Estimates of the total cleanup bill for "swimmable and fishable waters by 1983" range up to $100 billion.

10.	Words: Public benefits	By 1975, the Department of the Interior's Heritage Conservation and Recreation Service (HCRS), had joined EPA to develop greater public benefits from the clean-up effort. This alliance was formed because the 1972 Act encouraged the development of recreation and open space in conjunction with the water cleanup.
11.	Picture: Person and dog in canoe	And it was an excellent partnership, because clean rivers, lakes and streams have always invited people to have fun.
12.	Picture: White birches reflected in water	... And because open space in a natural environment helps to keep water pure.
13.	Words: Clean Water Act	In 1977, with passage of the Clean Water Act, Congress pushed beyond encouraging to requiring that clean waters, recreation and open space be considered together. The partnership of EPA and HCRS grew stronger. In 1978, the two agencies formalized their working relationship through a
14.	Picture: People and dog playing in surf	Memorandum of Understanding. Their mutual goal: to assist EPA grant applicants in combining recreation and open space with the water clean-up effort.
15.	Words: Planning ... to combine clean water, open space and recreation	Of course planning is the critical element to ensure that only carefully thought-out projects — hopefully ones combining all three elements — are built. And in order to get the greatest value out of each tax dollar, planning is critical at two
16.	Words: Planning ... at two levels ...	levels: first, in the broad-ranging Water Quality Management Plan or WQM; second; in the planning of a specific wastewater treatment facility and its environs.
17.	Picture: Person looking out from lighthouse	One of the purposes of Water Quality Management Planning is to examine existing and projected land uses along the nation's waters; then, to determine corrective and preventative measures that state and local governments must undertake to achieve water quality standards.

18.	Picture: Horse in foreground, sailboats in background	Planning for the development of recreation and open space can facilitate the water cleanup effort. In particular, shoreline uses can have a direct impact on water quality. Areas along rivers and streams can be used as buffer strips to protect the waters in the future.
19.	Picture: Construction machine	For example, by careful planning and legislation, communities can prevent excessive storm runoff in cities, suburbs and agricultural areas
20.	Picture: Tractors tilling field	likewise, they can eliminate poor construction and forestry practices that cause erosion and lead to sedimentation in streams and lakes.
21.	Map: Florida	Your community, like Tallahassee and Leon County in Florida, could adopt standards for new construction requiring that runoff from developed areas does not exceed natural flows.
22.	Map: Michigan	Or, as in Michigan, your community can institute a system for controlling erosion at construction sites. There, a soil erosion plan must be prepared for any development of one acre or larger if it is within 500 feet of a lake or stream.
23.	Words: The greenway	The most ambitious planning and development effort linking recreation with open space with wastewater treatment is the GREENWAY. Greenways are
24.	Picture: People riding bicycles	created when planners look beyond wastewater treatment ... to multiple uses of the same land ... to joint development by multiple landowners ... to the recycling of abandoned treatment sites ... to natural pollution prevention.
25.	Picture: Boats docked in front of apartment complex	Greenways around the country vary from areas of open space along a waterway with a network of trails and parks ... to a pleasing mixture of housing, commerce, parks, trails and even industry.

26.	Picture: Swimming area at sunset	And the benefits to the public from this type of development justify the effort and costs. Benefits such as increased land values; improved health and safety; and large, high quality areas of recreation that are accessible ... Plus a stretched tax dollar.
27.	Picture: Creek spanned by stone bridge	One well-planned and effective Greenway effort is the Patriots Path — a 27 mile long, linear park along the banks of the Whippany River in southern Morris County, New Jersey.
28.	Picture: People cleaning up site	Patriots Path is an evolving recreational trail system — the project of numerous civic and environmental groups from towns along the Whippany — which will link communities with recreational and historic areas.
29.	Picture: Trail through woods	Patriots Path demonstrates the effective cooperation between individuals, groups and local governments to preserve a river ecosystem and create a unique regional park — a greenway.
30.	Words: Coordinating acquisition and protection measures	A common sense practice in Water Quality Management planning is COORDINATING ACQUISITION AND PROTECTION MEASURES. Such coordination, again, stretches the public dollar by concentrating expenditures on land which is inexpensive now compared with its potential value, once cleaned up. Also coordinated acquisition prevents repollution of the water by eliminating uncontrolled development at the water's edge.
31.	Picture: Three people walking towards foot bridge	This means for example a local park authority, that wishes to purchase water-side land in the future, can both save money and protect the waterways by coordinating its acquisitions with the water clean-up schedule.
32.	Map: Land use map	But it does take planning and that is what Water Quality Management is all about. It is also about integrating the findings from other planning efforts: regional development plans, local recreation demand studies and Army Corps of Engineers flood plain studies, to name some possibilities.

33. Words: SCORP

To take advantage of the recreation potentials identified through WQM planning, perhaps one of the most important plans in your state is its SCORP or Statewide Comprehensive Outdoor Recreation Plan. Among other benefits, an approved SCORP on file in your State Capitol qualifies you for monies from the Federal Land and Water Conservation Fund.

34. Picture: Surf with mountains in background

The SCORP briefly outlines those factors which influence your State's outdoor recreation activity — factors such as climate, topography, population, and wildlife.

35. Picture: Handicapped people on foot bridge

In addition, it identifies the recreation needs of special populations .. the elderly, the handicapped, the economically disadvantaged.

36. Picture: Lake swimming area

Finally, the SCORP proposes certain actions to be taken over the next five years to provide more outdoor recreation opportunities for the citizens of your State. So even if you are not applying for monies through HCRS and the Federal Land and Water Conservation Fund, it makes sense to examine your State's SCORP when considering recreation in Water Quality Management Planning.

37. Words: WQM Planning:
1. responsibility of state and local "208" agencies.

Two final points about Water Quality Management Planning ... First, it is the responsibility of State and local WQM agencies, not the Federal government.

38. Words: WQM Planning:
2. projects needs and controls pollution.

Second, WQM Planning <u>projects</u> future needs for wastewater treatment facilities; once a Water Quality Management Plan has been approved, all 201 construction projects must be consistent with it.

39. Words: "201" funding, Step 1: planning

The EPA funds 201 projects, or the construction of wastewater treatment facilities in three distinct steps: <u>In step 1</u>, funds are provided for planning treatment and interceptor systems, and for considering recreation opportunities. Today, many States, rather than the Federal government, now certify the Step 1 process, as well as Water Quality Management Planning.

40.	Words: "201" funding, Step 2: design/engineering Step 3: construction	In step 2, funds are awarded for designing and engineering the projects. And in step 3, funds are given for the project's actual construction.
41.	Words: Multiple use	A key concept to keep in mind in any of these steps leading to construction is the opportunity for MULTIPLE USE. Multiple use means the public gets extra value from the tax dollar by piggybacking a recreation purpose with development of a wastewater treatment facility.
42.	Graphic: Ice hockey player and pumping station	The multiple use philosophy was put into action in Barrington, Rhode Island. Thanks to strong public interest and a creative engineering consultant, a pumping station was located next to an outdoor ice hockey rink and designed to form bleachers for spectators at very little extra cost.
43.	Picture: Pipe on pier	In New York City, the 26th Ward Plant shares its sludge loading pier with fishermen who claim it offers some of the best fishing around.
44.	Picture: Lush park	In Fulton County, Illinois, in a novel twist to multiple use, sludge from the treatment plant has been applied to stripmined land to create a lush park.
45.	Picture: People bike riding on trail	And in Morris County, New Jersey, an historic canal now shares its path through the trees with a thirteen mile footpath and greenway which runs atop a regional interceptor.
46.	Picture: Iron grillwork	This multiple use project known as Towpath Trail has also kindled interest in adjacent historic buildings and restoration of the Boonton Ironworks Historic District.
47.	Words: Environmental education facility	A variation of the multiple use philosophy is the ENVIRONMENTAL EDUCATION FACILITY. Here the treatment site itself serves as a classroom to foster understanding of water purification and ecology for the people of its community.

48.	Picture: Plant schematic display	One such facility is the Cedar Creek Plant in Bayshore, New York. As many as 250 visitor each week tour the plant and view speci . displays in a training room at this fascinating environmental education facility.
49.	Picture: People touring plant	A major benefit of this type of multiple use facility is to build citizen understanding, ultimately leading to greater citizen tax support.
50.	Words: Recycling abandoned treatment facilities	Still another opportunity is RECYCLING ABANDONED TREATMENT FACILITIES.
51.	Picture: Swimming pool	Monticello Municiple Park in Little Rock, Arkansas, is an award-winning recycling design. Here a creative engineering firm converted an abandoned treatment plant into a swimming pool complex
52.	Picture: Playground	and a unique adventure playground. A miracle in comparison to the abandoned site! These well-executed examples did not happen by chance.
53.	Picture: Overhead view of treatment facility	To effectively combine a treatment facility with recreation and open space there are design considerations fundamental to all 201 projects: compatibility of the area chosen with surrounding land uses. Proximity of transportation for maximum public access ...
54.	Picture: Fenced overlook on lake	Possible need for fencing, utilities, and night lighting ... harmonious design, the effect of topography, drainage, flooding ... physical characteristics of the water ... and others.
55.	Picture: Group of people at streamside	The public should be involved in examining these and other important considerations. In fact public participation in Federal water cleanup and recreation programs is not only a good idea, but it is also a legal requirement for WQM and 201 projects.

56.	Picture: People walking along overgrown tire tracks	And beyond the requirement, involving the public from the pre-planning stage fosters early public interest and long-run public support.
57.	Picture: Children climbing on rocks in stream	It also means that the recreation provided will receive maximum use and will be truly responsive to public need.
58.	Word: Funding	Planning and construction cost money. And often the creative juices flow and imaginations run a lot more freely than does the money needed to carry out a good idea. But money can be found as the examples testify.
59.	Words: "208" professional planning consultants	In Water Quality Management Planning, money from EPA is available to hire professional planning consultants for the consideration of recreation and open space opportunities. At this stage the consultant, working with a SCORP and other regional plans, can identify these needs and opportunities for all the 201 projects in the planning area.
60.	Words: Support for recreation and open space beyond Step 1	In wastewater treatment facility planning most EPA grant support for the development of recreation and open space, along with the construction of treatment facilities, starts in the Step 1 - Planning phase. However,
61.	Picture: Person at controls of construction machine	even during the construction stage, grading and restoration of the land can still be performed to accommodate recreation use.
62.	Picture: People in park	Perhaps your plan suggests the need for more land to create a greenway. Armed with a plan that is responsive to public needs, 201 grantees can seek funding from a variety of sources in addition to EPA.
63.	Words: Land and Water Conservation Fund 50%	HCRS through the Land and Water Conservation Fund provides funds on a 50% matching basis for recreational land acquisition and for developing recreational facilities on the site.

64.	Words: Historic Preservation Funds	The HCRS also provides matching funds for Historic Preservation Fund grants for the acquisition and rehabilitation of historic sites and archeological remains.
65.	Words: H.U.D. Community Development Block Grants up to 100%	H.U.D. Community Development Block grants can cover up to 100% of project costs for land acquisition, parks and facility development. They can also be matched with Land and Water Conservation Funds and other Federal funds.
66.	Words: U.S. Treasury General Revenue Sharing	Funds from the U. S. Treasury's General Revenue Sharing program can be used for these purposes and match any of the grants just discussed.
67.	Words: U.S. Labor Department C.E.T.A. Program	The CETA Program of the United States Labor Department can employ people to complete recreation projects — constructing trails, and paving bikeways, for example.
68.	Words: state and local governments	State and local governments have special funding programs for recreation and open space projects. These funds usually make up all or part of the non-Federal share of Federal grants-in-aid monies.
69.	Word: doubts?	But maybe you have some doubts about all of this? For example ...
70.	Words: complications? delays?	will adding recreation to wastewater treatment facilities create problems? Will it hold up a 201 construction project? No — there is no reason why planning for and achieving any or all of the kinds of public benefits we have described cannot be synchronized with the process of completing the project itself.
71.	Word: liability?	What about liability for public safety? Simple design features incorporated into the structure, such as railings, can prevent accidents while permitting public access.

72.	Words: Increased costs?	Will safety features and recreation facilities increase costs? Costs could be increased, but often times not to a significant extent. Certain safety features are eligible for 201 funds ... with proper justification of expense. Also remember that the multiple use of project facilities reduces other community costs for recreation.
73.	Word: Staffing?	Will there be sufficient staff at treatment plants to take care of visitors? Many such facilities now rely on volunteers and school systems to administer environmental education programs.
74.	Picture: Person juggling pins, sideview	There are some problems, sure, but you are the key to making it work. To <u>make</u> it work, to see results,
75.	Picture: Person juggling pins, frontview	people such as yourselves have to be jugglers ... juggling inputs, potential solutions, potential funding, experts, timetables, standards, and well, the list goes on.
76.	Picture: Person juggling balls	The trick is to keep them all moving, each in the right place at the right time.
77.	Picture: Steamboat at night	Eventually, after much unseen, hard work, the public — may applaud the effort. And through it all the nation's waters will be cleaner and more enjoyable for present and future generations. And that's everyone's goal.
78.	Credit slide	For valuable information and expertise at every stage of project development, call your regional offices of HCRS or EPA.
79.	Credit slide	
80.	Blank	

Working for Clean Water is a program designed to help advisory groups improve decision making in water quality planning. It aims at helping people focus on essential issues and questions, by providing trained instructors and materials suitable for persons with non-technical backgrounds. These materials include a citizen handbook on important principles and considerations about topics in water quality planning, an audiovisual presentation, and instructor guide for elaborating points, providing additional information, and engaging in problem-solving exercises.

This program consists of 18 informational units on various aspects of water quality planning:

- Role of Advisory Groups
- Public Participation
- Nonpoint Source Pollution: Agriculture, Forestry, and Mining
- Urban Stormwater Runoff
- Groundwater Contamination
- Facility Planning in the Construction Grants Program
- Municipal Wastewater Processes: Overview
- Municipal Wastewater Processes: Details
- Small Systems
- Innovative and Alternative Technologies
- Industrial Pretreatment
- Land Treatment
- Groundwater Contamination
- Multiple Use
- Environmental Assessment
- Cost-Effectiveness Analysis
- Wastewater Facilities Operation and Maintenance
- Financial Management

The units are not designed to make technical experts out of citizens and local officials. Each unit contains essential facts, key questions, advice on how to deal with the issues, and clearly-written technical backgrounds. In short, each unit provides the information that citizen advisors need to better fulfill their role.

This program is available through public participation coordinators at the regional offices of the United States Environmental Protection Agency.